

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF OKLAHOMA**

OKLAHOMA FARM BUREAU MUTUAL)	
INSURANCE COMPANY AS SUBROGEE,)	Case No.CIV-22-18-D
OF MICHEL DIEL)	
Plaintiffs,)	Removed from the District Court
)	Garfield County, Oklahoma
v.)	Case No. CJ-2021-254-02
)	
OMEGA FLEX, INC.,)	ORAL ARGUMENT
Defendant.)	REQUESTED

**DEFENDANT OMEGA FLEX, INC.’S MOTION AND OPENING
MEMORANDUM OF LAW TO EXCLUDE CAUSATION OPINIONS AND
TESTIMONY FROM CHARLES COWELL, MARK HERGENRETH, AND
JOHNIE SPRUIELL PURSUANT TO FED. R. EVID. 702**

Omega Flex, Inc. (“Omega Flex”) respectfully seeks an Order to preclude causation testimony and opinions from Plaintiff’s putative causation experts Charles Cowell, Mark Hergenrether, and Johnie Spruiell, pursuant to Federal Rule of Evidence 702. These putative experts from Integrity Forensics & Engineering (“IFE”) submitted a joint report dated March 3, 2023 (the “IFE Report”) which, in its summary, identifies thirteen separate opinions that either Cowell and/or Hergenrether would testify to at trial.¹

There is no question that a direct lightning strike can start a house fire whose cause is unrelated to the gas system in the home. As discussed herein, IFE’s effort to attribute the Diel’s fire to Omega Flex’s TracPipe© CSST should be excluded as unreliable speculation under Rule 702 because: (1) IFE did no analysis whatsoever to determine

¹ Johnie Spruiell is not on Plaintiff’s Final Witness List, but he is listed along with either Cowell or Hergenrether as contributing to the opinions at issue in this Motion.

whether the powerful positive-charged lightning strike at issue in this case could have caused the small hole in the Diel's CSST, (2) IFE did no analysis whatsoever to test whether propane escaping from the CSST could have been ignited by the small electrical arc that formed that hole, and (3) IFE did no analysis whatsoever to test whether the Diel's fire would have been avoided if the Diel's CSST had been properly bonded as instructed by Omega Flex's Design & Installation Guide.

Accordingly, this Motion seeks to preclude the IFE witnesses from offering all testimony and opinions relating to these issues, which are identified as Opinions 2, 5, 9, 12 and 13 (causation) and 6-8 (bonding) of their Report. Although this Motion does not focus on all thirteen opinions identified in their Report, it does seek to preclude the material opinions expressed in the IFE Report, and thus, eliminates any reason for the witnesses' testimony. Omega Flex requests oral argument and/or a *Daubert* hearing to address these issues if the Court deems it helpful to decide this motion.

FACTUAL BACKGROUND

On July 11, 2020, lightning struck the north gable of the Diel's home, causing an attic fire.

Plaintiff served three expert reports purporting to support their theory about what caused the fire, including a report from Integrity Forensics and Engineering, dated March 3, 2023, that included opinions from various combinations of Charles "Kelly" Colwell," Mark Hergenrether, and Johnie Spruiell. See **Exhibit A** (the "IFE Report"). Kelly Colwell is a Licensed Master Electrician who joined IFE as a consultant in 2010. Ex. A, p. 26. Mark Hergenrether is a Professional Engineer with IFE since 2010. *Id.*, at

28. Johnnie Spruiell is a Professional Engineer with IFE since 2012. *Id.*, at 27. IFE did not produce a report rebutting any of the Expert Reports submitted by Omega Flex in this case.

A. The Causation Issues In This Case

The IFE Report opines that “the ignition source for the fire in the Diel home occurred when a lightning induced arc holed was created in the CSST gas piping system. The LP-gas within the Omega Flex TracPipe© CSST piping escaped and was ignited during the arc event. This resulted in a fuel-gas-fed fire.” *Id.*, p. 2 (Opinion 2). Opinions 3, 5, 9, 12, and 13 express opinions purporting to support their ultimate conclusion in Opinion 2. Opinion 3 discusses that “identified arc hole in the CSST is 0.38 square millimeters” and the electrical charge transfer necessary to create the arc hole of that size was 0.12 coulombs. *Id.*, at 2; *see also* p. 23. Opinion 5 claims that as a result of the arc hole, the CSST failed to contain the fuel gas. *Id.*, at 2. Opinion 9 purports to compare Diel hole to holes formed in their laboratory testing. *Id.* at 3. Opinion 13 purports to identify “similarities” between the Diel’s fire and other fires that IFE says it investigated.

The causation questions in this case involve three material undisputed facts relevant to this Motion: (1) the Diel’s home was directly struck by a rare, positive-charged lightning strike with a peak current of 52.5 kA,² and, as noted, (2) the size of the hole found in the Diel’s CSST line after the fire was just 0.38 mm², and (3) the amount of electrical energy transfer or “arc” required to produce a hole that size is 0.12 coulombs (or “C”). Thus, the two specific causation questions in this case are:

² IFE Report, at 10; *See Exhibit B*, Expert Report of Timothy L. Morse, Ph.D., CFEI (“Morse Report”), dated April 3, 2023, at p. 42.

- (1) Can a positive-charged lightning strike with a peak current of 52.5 kA cause a 0.12 coulomb arc; and
- (2) Can a 0.12 coulomb arc cause sustained ignition of propane escaping (if any) from a 0.38 mm² hole, such that the gas-fed flame could have ignited combustible material in the Diel's attic?

As explained by Omega Flex's expert, Timothy L. Morse, Ph.D., CFEI, the answer to both questions is: "No."

1. The Hole Formation Issue

As Dr. Morse explains, the small hole in the Diel's CSST "could not have been formed by a positive lightning strike."³ IFE agrees that positive lightning strikes only account for about 5% of all lightning strikes, and "tend to be more powerful-more charge transfer, more current,-than negative strikes."⁴ Positive strikes also "have relatively long waveforms compared to negative lightning strikes," i.e., a positive "wave" delivers a more consistent charge than the peaks and valleys of a negative waveform.⁵ Colwell concedes that the size of the charge dictates the size of the hole it forms—the bigger the charge the bigger the hole.⁶ Thus, as Dr. Morse explains, a more-powerful positive strike, with a long waveform, "will deliver a relatively higher amount of charge (compared to a negative lightning strike) and thus will form relatively larger holes."⁷

³ See Morse Rep., at 42.

⁴ See **Exhibit C**, Spruiell Dep. Ex. 5, at 2-3 (positive strikes can be "about 10 times the voltage of negative lightning").

⁵ Morse Rep., at p. 42.

⁶ See **Exhibit D**, Deposition of Charles Colwell, dated 4/20/23 (Colwell Dep.), at: 64:6-22.

⁷ Morse Rep., at 42.

The positive strike that hit the Diel home was a massive 52.5 kA.⁸ As Dr. Morse explains, a waveform that could have delivered only 0.12 C of charge, a tiny fraction of the positive strike's energy, is not a possible waveform from a positive lightning strike of 52.5 kA.⁹ Thus, as Dr. Morse explains, the only explanation for an arc that caused the hole in the CSST at the Diel home is that "when insulated and energized branch circuit wires and the jacked TracPipe are exposed to a pre-existing fire which consumes the electrical (is this correct?) insulation and TracPipe jacket."¹⁰ It follows that because a lightning-included arc did not, and could not, cause the small hole in the CSST, the escaping propane must have been ignited by the pre-existing fire (more on that below).¹¹

IFE's Report does not mention positive-strike waveforms generally or specifically address whether a positive strike of 52.5 kA could have resulted in a 0.12 C arc. At their depositions, neither Colwell nor Hergenrether could take specific issue with Dr. Morse's opinions about the impact of positive lightning strike of the causation analysis for this case. For example, when asked if he disagreed with Dr. Morse's conclusion that a positive waveform could not have resulted in a 0.12 C arc, Colwell testified that he did not "know the waveform that hit the house."¹² When asked if he disagreed with Dr. Morse that "a positive lightning strike is a longer waveform than a negative lightning strike, Colwell testified: "I wouldn't be offering an opinion on that at this point."¹³ When asked if the

⁸ Morse Rep., at 20; IFE Report, at 10.

⁹ Morse Rep., at p. 42.

¹⁰ Morse Rep., at p. 43.

¹¹ *Id.*

¹² Colwell Dep. 88:7-11.

¹³ *Id.* at 85:18-24.

waveforms between a positive and a negative strike were “different at all,” Colwell testified: “That’s going to get beyond me at this point.”¹⁴

Hergenrether testified similarly. When asked where IFE took issue with Dr. Morse’s analysis, he testified: “If you’re referring to his simulations or his calculations on the positive lightning strike, I don’t have an opinion on that other than – again, no I don’t have an opinion on that.”¹⁵

IFE’s Report in Opinion 13, at pages 22-25, purports to compare the Diel’s fire to other fires that IFE has investigated. There is no data to support this comparison, and no mention of any fires involving positive lightning strikes, or a 012 coulomb arc. At his deposition, Hergenrether was unable to identify a single other case involving “this small of a hole with a positive lightning strike.”¹⁶

2. The Propane Ignition Issue

In addition to failing to assess whether the subject lightning strike could cause the subject hole, IFE also failed to test whether the arcing event that caused the hole can cause ignition. IFE, in fact, did not perform any ignition testing based on the facts of the Diel case.¹⁷ IFE’s Report does not cite or reference any test or peer-reviewed literature demonstrating that a 0.12 C arc can cause sustained ignition of propane, including in the circumstances at the Diel’s home. In fact, IFE’s Report does not cite any literature, study,

¹⁴ *Id.* at 136:18-137:3.

¹⁵ **Exhibit E**, Deposition of Mark Hergenrether, dated 4/20/23 (“Hergenrether Dep.”), at 47:16-24; 48:1-8 (“That’s not – that’s basically not what I’m going to be opining on.”); 48:14-49:2 (“I’m not offering an opinion on that.”).

¹⁶ *Id.* at 49.

¹⁷ *Id.* at 35:1-5.

test or experiment evidencing sustained propane ignition with less than .5 coulombs or even less than 1 coulomb of charge. When Colwell was asked to identify any such testing at his deposition he could not do so.¹⁸ When asked if he was aware of any testing showing ignition was possible from less than one coulomb of charge, Hergenrether testified: “That, I’m not certain. But as I sit here today, I can’t recall anything.”¹⁹

In 2014, IFE drafted an unpublished “Abstract” called “Lightning-Caused CSST Hole Formation With Concurrent Ignition of Escaping Fuel Gas: Validation of Field Observations By Laboratory Testing.”²⁰ Figure 5 therein presents the purported results of that work. IFE’s Report references this Abstract on page 21, noting “[a]verage charge transfer in each test shot was approximately 1.3 coulombs. Hole formation occurred frequently, as did ignition of the escaping fuel gases...” IFE’s 2014 Abstract involved foundationally different facts than the Diel case:

- a. The electrical arcs IFE used during its 33-retained tests were approximately 1.3 coulombs—more than *ten times* the amount of electricity in the Diel’s case;
- b. IFE excluded a 1.1780 C test because it was “an unusually low charge transfer value.” This “unusually low” transfer was still nearly ten times the amount of transfer in the Diel’s case;
- c. IFE artificially pinpricked the CSST before it subjected it to the arc, which is obviously not the condition Omega Flex’s Trac Pipe was in in the Diel’s attic;
- d. IFE attempted to replicate negative-charged lightning strikes because those strikes are the most common, but the lightning strike at the Diel’s home was a much more powerful positive-charged lightning strike; and

¹⁸ Colwell Dep. at 68:2-69:22.

¹⁹ Hergenrether Dep., 32-4-8.

²⁰ See **Exhibit C**, Spruiell Deposition Ex. 5

- e. Using ten times that amount of electrical transfer, IFE only produced a sustained flame in 9 of 17 tests.

Thus, IFE's 2014 research using even ten times the amount of electrical transfer that is at issue in this case failed to obtain sustained ignition in 47% of its tests.²¹ As Spruiell himself agreed, *sustained* ignition is difficult to achieve even if ignition is momentarily achieved because "the flame will likely blow out" because "the theoretical speed of the gas jet exceeds the flame propagation rate of [propane]."²² Thus, although the flow velocity out of a CSST hole may be "much lower than the 'perfect jet' speed...based on our test observations, *sufficient speed often remains to cause flame blow-out*."²³ But none of IFE's prior testing used 0.12 coulombs "or anything like that."²⁴ Spruiell also believes sustained ignition is more likely if the gas jet impinges on a nearby object.²⁵ But IFE did not take any measurements to test whether impingement was even a viable theory in the Diel's case.²⁶

Spruiell's opinion about flame blow-out is consistent with Dr. Morse's own Flame Ignition Testing, an experiment specifically designed to test whether or not fuel gas leaking from a hole in a CSST gas line can be ignited from a hole less than 1 mm. That testing found that gas was unable to be ignited right at the hole because "the jet velocity is too high and the fuel gas has not been premixed with air." In order to achieve ignition, the

²¹ Spruiell Ex. 5, at Fig. 5 ("Sustained Flame?" Column).

²² **Exhibit F**, Deposition of Johnie Spruiell, 5/12/23, at 82:3-84:1.

²³ *Id.* at 84:2-17 (emphasis added).

²⁴ Spruiell Dep., 54:16-18.

²⁵ *Id.*, 81:18-10.

²⁶ *Id.*, 78:6-80:4; 88:19-89:2.

ignition source had to be placed a few inches away from the hole where the gas velocity decreased. Even then, the flame would “quickly blow off and extinguish” when the ignition source was removed.²⁷ Similarly, Dr. Morse reported on a series of Arc Ignition testing where the arc caused a hole in the CSST but was unable to ignite the gas escaping from the hole in any of the tests.²⁸ Consistent with his opinion that an existing fire in the Diel’s attic caused the propane to ignite in the Diel’s home, the gas in the Arc Ignition test could be ignited by a separate ignition source placed downstream from the hole.²⁹ IFE has never rebutted any of these opinions or taken any specific issue with Dr. Morse’s testing.

As noted, IFE’s Report claims that “[w]hile each fire investigation is different, there are numerous similarities between the fire that occurred in the Diel home and the 200+ other CSST related fires this firm has investigated.”³⁰ IFE does not cite anything supporting this assertion. IFE provides no data or analysis of any other fire it has investigated. IFE does not claim that any other fire it investigated involved ignition from a 0.12 coulomb arc.

B. THE BONDING ISSUE

“Bonding” is the technical term for joining adjacent electrical conductors that are not intended to transmit electricity to significantly reduce the risk of electrical transfer, or “arcing,” between them in the event of a lightning strike. It is undisputed that the CSST line in the Diel’s home was not directly bonded to the grounding electrode via a dedicated

²⁷ Morse Rep., Appendix D.1

²⁸ *Id.* at D.1-D.4.

²⁹ *Id.*

³⁰ IFE Rep., at 4 (Opinion 13).

bond wire as required by Omega Flex’s Design & Installation Guide at the time.³¹

IFE’s Opinion 8 contends that “an arc can still occur...even when a dedicated bond wire is attached to the system” and “the arc generated in our physical testing can generate an arc hole from which the fuel gas will escape from the CSST gas piping.”³² This describes what might possibly occur, but does not describe what was likely or what would or would not have occurred at the Diel’s house.

IFE conducted no bonding tests based on the facts of this case. Its prior tests intending to investigate bonding’s effectiveness failed to produce any hole in the CSST 81% of the time³³. IFE’s tests also failed 100% of the time to produce a hole in the CSST under 1 coulomb of charge, and failed to produce a hole more than fifty percent of the time even at ten, hundreds, or many thousands of times more charge than 0.12 coulombs.³⁴ Thus, IFE’s own results demonstrate that bonding, far more likely than not, would have prevented a hole on a 0.12 coulombs charge. When asked to specifically identify which of its five bonding tests that produced a hole was akin to the Diel case, Colwell testified: “I’m not prepared to do that.”³⁵ When asked if bonding “reduces the risk at the arc will cause a

³¹ Morse Rep. at 44. See **Exhibit G** (D&I Guide). Omega Flex’s D&I Guide instructed that “a bonding clamp must be attached to the brass AutoFlare® fitting adapter (adjacent to the pipe thread areas – see Illustration 1) or to a black pipe component located in the same electrically continuous gas piping system as the AutoFlare fitting. . . .” Omega Flex also expressly warns that the “installation instructions and procedures contained in this Design Guide must be strictly followed in order to provide a safe and effective fuel gas piping system or system modification” and that failure to follow Omega Flex’s installation instructions could result in, among other things, fire or explosion.

³² IFE Rep., at 4 (Opinion 8).

³³ Colwell Dep., at 103:6-21; 117:118:6; 120:20-122:23.

³⁴ *Id.* at 106:8-22.

³⁵ *Id.*, at 117:10-118:7.

hole in the TracPipe,” Colwell testified: “I’m not—I’m not—at this point I’m not prepared to agree or disagree with that.”

As Dr. Morse discussed in his Report, Exponent did perform an electrical simulation to determine whether or not direct bonding would be effective in preventing a hole in the CSST under a scenario where the hole was caused by electrical arcing due to lightning.³⁶ This bonding test used the median waveform for a positive lightning strike (the type of strike at the Diel’s home), and used the voltage necessary to initiate the arc between the CSST and coaxial cable (as in the Diel’s home). At 8.4 C of charge—70 times the charge necessary to form the Diel’s hole—the bond wire decreased the peak voltage and prevented electrical arcing, thus preventing any hole.³⁷

When Colwell was asked specifically if he could “offer the opinion that bonding of the Diel CSST with a dedicated bond...would have prevented this arcing event that caused a [.12] coulomb hole,” Colwell testified: “I don’t know of anybody that can...”³⁸

ARGUMENT

Federal Rule of Evidence 702 provides

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

³⁶ Morse Rep., at 44-46; Appendix B.8-9.

³⁷ *Id.* at 44-45.

³⁸ Colwell Dep., 118:18-119:11.

The Supreme Court has interpreted Rule 702 to require that an expert's testimony be both reliable, in that the witness is qualified to testify regarding the subject, and that his or her testimony must be relevant—that it will assist the trier in determining a fact in issue. *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 589- 592 (1993); *Truck Ins. Exchange v. MagneTek, Inc.*, 360 F.3d 1206, 1210 (10th Cir. 2004). The Court's role in weighing expert opinions against these standards is that of a “gatekeeper” to “ensure that any and all scientific testimony...is not only relevant, but reliable.” *See Kumho Tire Company, Ltd. v. Carmichael*, 526 U.S. 137, 147 (1999).

A proper *Daubert* analysis requires examining (1) whether the expert's technique or theory can be or has been tested; (2) whether the technique or theory has been subject to peer review and publication; (3) the known or potential rate of error of the technique or theory when applied; (4) the existence and maintenance of standards and controls; and (5) whether the technique or theory has been generally accepted in the scientific community.” *Daubert*, 509 U.S. at 593-94. Although experts may extrapolate from existing data, “nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.” *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997).

The proponent of expert testimony has the “burden of establishing the admissibility of the testimony by a preponderance of the evidence.” Fed. R. Evid. 402, *Daubert*, at 592, n. 10; *Ralston v. Smith & Nephew Richards, Inc.*, 275 F.3d 965, 970, n. 4 (10th Cir. 2001).

As discussed herein, the IFE's putative specific causation and boding testimony does not withstand scrutiny and is not admissible under Rule 702 or *Daubert*.

I. IFE DID NOT RELIABLY OPINE THAT A LIGHTNING-INDUCED ELECTRICAL ARC CAUSED THE DIEL'S FIRE

IFE does not reliably opine that (1) a positive-charged lightning strike with a peak current of 52.5 kA caused the 0.12 coulomb arc, or (2) that the 0.12 coulomb arc caused sustained ignition of propane escaping from the hole in Diel's CSST, such that the gas-fed flame ignited combustible material in the Diel's attic before any other fire existed in the attic. Accordingly, IFE's witnesses cannot reliably opine that a lightning-induced electrical arc involving the CSST caused the Diel's fire. This testimony should be excluded.

IFE's Report claims that its opinions "are based on the data collected, the data analyzed, and testing of our hypothesis as described in NFPA 921." IFE Rep. at 1. But repeatedly citing NFPA 921 and reliably applying it are two very different things. NFPA 921 demands testing a hypothesis to determine if it "can the test of careful and serious challenge," which includes conducting experiments, applying scientific principles, or relying on others' research when "*the conditions, circumstances, and variables of the research and those of the hypothesis are sufficiently similar.*" NFPA 4.3.6. Testing is fundamental to the NFPA to avoid presumptions (4.3.8), expectation bias (4.3.9) confirmation bias (4.3.10), and to ensure that conclusions are held to the proper level of certainty (4.5). Importantly, testing "should be designed to disprove, or refute, the hypothesis." NFPA 4.3.6.

IFE did not apply this methodology. IFE did not conduct any tests with knowledge

of the facts of this case. IFE did not conduct any test, or cite any peer-reviewed literature, demonstrating that a waveform from a positive lightning strike could produce an arc as low as .12 C. IFE did not conduct any test, or cite any peer-reviewed literature, demonstrating sustained ignition of propane from a .12 C arc. Thus, in the first instance, IFE has no evidence that the positive lightning strike that attached to the Diel home could even cause the hole in the CSST.

Simply, there was no “sufficiently similar” testing done—except by Omega Flex’s experts who explained in detail the material case-specific analysis missing from IFE’s reports. *See Dean v. Thermwood Corp.*, No. 10-CV-433-CVE-PJC, 2012 WL 90442, at *8 (N.D. Okla. Jan. 11, 2012) (excluding defect expert who “made no effort to duplicate the sequence of events” that the Plaintiff described). With respect to causation, evidence indicating “the mere possibility that a defect caused the injury is not sufficient.” *Roe v. FCA US LLC*, No. CIV-19-167-SLP, 2021 WL 2640107, at *13 (W.D. Okla. May 28, 2021), *aff’d*, 42 F.4th 1175 (10th Cir. 2022) (citations and quotations omitted).

As Colwell and Spruiell admitted, IFE relied exclusively on testing it did before the *Diel* case that did not employ the Diel’s facts. Colwell Dep., 11: 1-17, 32:23-33:2; Spruiell Dep., 68:4-6. None of IFE’s prior testing used 0.12 coulombs “or anything like that.” Spruiell Dep., 54:16-18. *See Black v. M & W Gear Co.*, 269 F.3d 1220, 1237–38 (10th Cir.2001) (district court properly “excluded the evidence because [the expert] had not based his conclusion on the results of tests or calculations specific to [the plaintiff’s] accident”).

As discussed in the Statement of Facts, IFE’s prior testing involved multiple

material differences with the Diel's facts, including using ten times the amount of electricity transfer (Hergenrether Dep., 30:1-10). The missing ignition data *relating to this case* is especially egregious because Spruiell himself wrote that sustained ignition is difficult to achieve because "the theoretical speed of the gas jet exceeds the flame propagation rate of [propane]." Spruiell Dep., at 82:3-84:1 9. Spruiell believes, in other words, that the flame "will likely blow out" but thinks that sustained ignition is more likely if the gas jet impinges on a nearby object. Spruiell Dep., 81:18-10. But IFE did not take any measurements to test whether impingement was even a viable theory in the Diel's case. Spruiell Dep., 78:6-80:4; 88:19-89:2. As a result, IFE did not collect the data it needed in this case to offer an opinion consistent with its own "blow out" theory or its own testing. *See Truck Ins. Exch. v. MagneTek, Inc.*, 360 F.3d 1206, 1211 (10th Cir. 2004) (excluding expert when plaintiff "failed to introduce evidence of actual experiments conducted by its experts showing that furring strips attached in a ceiling to 5/8 inch gypsum board that held a light fixture, *as at Sammy's*, could ignite at low temperatures due to pyrolysis.") (emphasis added).

IFE ultimately fails to identify any test or peer-reviewed literature that deals with the specific facts of this case, and fails to identify whether its conclusions for this case are supported in the scientific community. *See United States v. Rodriguez-Felix*, 450 F.3d 1117, 1125 (10th Cir. 2006) (expert properly excluded when his report's discussion of even his own research "fails to indicate whether it has been subjected to peer review, whether it has been published, and whether it has been accepted by other [experts] in the field."). As the 10th Circuit has recognized, the "precedent is clear and unequivocal that

the *ipse dixit* of an expert, no matter how qualified he may be, is never enough to guarantee him a ticket to admissibility.” *Graves v. Mazda Motor Corp.*, 405 F. App’x 296, 300 (10th Cir. 2010). As Dr. Morse demonstrated, IFE’s *ipse dixit* conclusions are not supported by the facts here because they fail to account for the rare, positive lightning strike or the lack of ignition testing demonstrating that .12 coulombs can cause sustained ignition. Morse’s opinions are un rebutted.

IFE’s causation opinions should therefore be excluded under Rule 702. As a result, Colwell and Hergenrether should be precluded from offering any such testimony or opinions at trial.

II. IFE’S OPINION THAT THE BONDING REQUIRED BY OMEGA FLEX’S INSTRUCTIONS WOULD NOT HAVE PREVENTED THE FIRE IS INADMISSIBLE SPECULATION THAT IS UNSUPPORTED BY IFE’S OWN TESTS

It is undisputed that the CSST line in the Diel’s home was not directly bonded via a dedicated bonding clamp in accordance with Omega Flex’s Design & Installation Guide at the time. *See* Exhibit H. Although the evidence establishes that TracPipe© did not cause the Diel’s fire, the fact that the installer failed to follow Omega Flex’s instructions provides a dispositive defense because it destroys the causal nexus between the alleged defect and the fire. *See Kirkland v. Gen. Motors Corp.*, 521 P.2d 1353, 1367 (Okla. 1974).

In an effort to avoid that defense and establish causation, IFE’s Opinion 8 contends that “an arc can still occur...even when a dedicated bond wire is attached to the system” and “the arc generated in our physical testing can generate an arc hole from which the fuel gas will escape from the CSST gas piping.” IFE Rep. at 4. Mere possibilities, however,

do not come close to establishing what would have happened more likely than not in the Diel's home had the TracPipe© been properly bonded as Omega Flex requires in its D & I Guide.

Here too, IFE did no testing based on the facts in the Diel's case. IFE's own prior bonding tests failed to produce any hole in the CSST when there was a dedicated bond in 22 of 27 tries—an 81% rate of efficacy even where IFE was attempting to promote arcing. IFE's test also failed 100% of the time to produce a hole in the CSST using under 1 coulomb of charge. For the 5 of 27 tests where a hole was formed, Colwell was “not prepared” to identify that any of the 5 tests were similar to the Diel's case. Colwell Dep., at 117:10-118:7. There is no possible way that IFE can testify more likely than not that proper bonding in the Diels' case would not have prevented the fire.

The Court's opinion in *Shanley, et al. v. Omega Flex, Inc.*, No. 19-CV-664-SLC, 2021 WL 778921, at *4 (W.D. Wis. Mar. 1, 2021) (granting summary judgment to Omega Flex), is directly on point. In *Shanley*, a lightning strike caused a fire in the Shanleys' home. *Id.* at *1. The investigation revealed that the home contained TracPipe© CSST to convey natural gas to the appliances and that a melting hole was observed in a segment of the CSST. *Id.* As here, the TracPipe© had not been installed in the manner directed by Omega Flex's installation instructions as it “had not been directly bonded to the household grounding electrode with a bonding clamp and heavy gauge bonding wire.” *Id.* As here, plaintiff's expert did not conduct any simulations *specific to the plaintiff's home* to determine whether directly bonding the CSST in accordance with Omega Flex's installation instructions would have prevented the perforation in the gas piping. *Id.* at *2.

As here, the plaintiff in *Shanley* could not meet its burden of proving a causal nexus between the alleged defect and the loss, because as here, the plaintiff's expert "did not even attempt to set up a simulation or to replicate any conditions in the Shanley home to attempt to discern whether the CSST still would have perforated had the system been properly bonded...". As the court held, "[t]his is a fatal gap in plaintiffs' proof." *Id.* at *4 (W.D. Wis. Mar. 1, 2021).

IFE has nothing else. IFE does not cite any peer-reviewed literature or test demonstrating that the bonding required by Omega Flex would have failed to prevent *the Diel's* fire. In contrast, Omega Flex's expert Dr. Morse specifically demonstrated, based on the Diel's facts, that bonding would have prevented a hole from forming and, thus, would not have resulted in ignition. Morse Rep. at 44-46. Farm Bureau cannot, therefore, sustain its burden to demonstrate the admissibility of its expert evidence based on this record.

CONCLUSION

For the reasons stated herein, Omega Flex respectfully seeks an Order precluding specific causation and bonding opinions from Charles Colwell, Mark Hergenrether, and Johnie Spruiell, including all testimony relating to Opinions 2-5, 9, 12, and 13 of their Report.

Dated: July 14, 2023

Respectfully submitted by,

/s/ Adam M. Masin

Adam M. Masin

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CERTIFICATE OF SERVICE

I hereby certify that on this 14th day of July, 2022, a copy of the foregoing Motion and Memorandum of Law to Exclude Causation Opinions And Testimony From Charles Cowell, Mark Hergenrether, and Johnie Spruiell was filed electronically and served by mail on anyone unable to accept electronic filing. Notice of this filing will be sent by e-mail to all parties by operation of the Court's electronic filing system or by mail to anyone unable to accept electronic filing as indicated on the Notice of Electronic Filing. Parties may access this filing through the Court's CM/ECF System.

By: /s/ Adam M. Masin
Adam M. Masin